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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/796,040      | 03/10/2004  | Jean H. Scholten     |                     | 2745             |

7590 10/28/2005

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| EXAMINER |
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PRICE, CRAIG JAMES

| ART UNIT | PAPER NUMBER |
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3753

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/796,040

Applicant(s)

SCHOLTEN, JEAN H.

Examiner

Craig Price

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/10/04 and 6/9/04.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/10/2004</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Miscellaneous**

1. It appears that applicant's attorney is not registered to practice with the United States Patent and Trademark Office. However, as per 3.73(b) permitting assignee to take action in applications, in order to be clear in discerning the propriety of future responses, it is suggested that all future responses in this application be countersigned by the applicant.
2. Claims 1-5 are pending.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed subject matter in claim 1, the "d. Pivot arm connected to the internal shaft", and "e. Associated actuation device ... that senses airflow changes around the hood opening." must be shown or the feature(s) canceled from the claim(s). Furthermore, the examiner would prefer item 35, be disclosed in Figure 2. The drawings are further objected to under 37 CFR 1.83(a) because they fail to show "a piston ring" as described in the specification on page 5, line 12. Any structural detail that is essential for a proper understanding of

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the disclosed invention should be shown in the drawing. MPEP § 608.02(d). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-5 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the more recent patent(s) cited.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorchev et al. (3,204,664) and Sharp et al. (5,385,505) and further in view of Ziege (2,917,077).

Regarding claim 1, Gorchev et al. discloses a existing venturi valve airflow device which is used to produce constant-velocity flow of varying-pressure airflow in a forced air heating system whose area opening can be adjusted by sash movement consisting of the following, external valve assembly in shaped venturi form (85), internal shaft connected to the external valve (82), internal spring loaded plunger cone (88,85) that slides along the shaft, and the pivot arm connected to the internal shaft (106).

Firstly, Gorchev et al. lacks the associated actuation device that adjusts the position of the shaft in response to a controlling device that senses airflow changes at the use/supplied point. Sharp et al. discloses the use of a existing venture airflow device which is used to produce a constant-velocity flow of varying pressure airflow in a laboratory fume hood (Col. 1, Lns. 32-49), which uses an associated actuation device that adjusts the position of the shaft in response to a controlling device that senses airflow changes around the hood opening (Col. 6, Lns. 31-49).

In view of the patent of Sharp et al., it would have been obvious to modify the venturi valve airflow device of Gorchev et al. to have the associated actuation device that adjusts the position of the shaft respond to a controlling device that senses airflow changes around a hood opening, in order to provide an air supply system in which the delivery of fumes can be controlled, thus effecting automatic control of airflow to and/or from a laboratory fume hood, as recognized by Sharp et al.

Secondly, Gorchev et al. teaches all of the features of the claimed invention, but lacks the insertion of a specially manufactured ring between the spring loaded plunger cone/valve head and a washer.

The feature believed to be called for by the claims over the prior art to Gorchev et al., concern specific structural elements of the dampening mechanism, which details are not exclusive to air handling systems. Ziege shows a specially manufactured ring (40) inserted between a spring loaded plunger cone and a washer, as seen in Figure 1, cooperating with a "tube" or cylinder (29) forming a dampening piston/cylinder arrangement for the purpose of damping valve motion.

In view of the patent of Ziege, it would have been obvious to modify the venturi valve airflow damping device (90) of Gorchev et al. to include a specially manufactured ring (40), onto the spring loaded plunger cone at rod (82) of Gorchev et al. cooperating with a cylinder, in order to provide a system that permits of dampening of valve motion as recognized by Ziege.

Regarding claim 2, in the device of the combination, the plunger cone/valve head is reconfigured so that a piston ring device can be cut and inserted at the time of the assembly of the valve.

Regarding claim 3, in the device of the combination, the plunger cone includes a tube (29) as taught by Ziege. The "tube" is believed to be, inherently "polished" in order for the piston (40) to slide smoothly thereon.

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Regarding claim 4, the shaft (82) of Gorchev et al., at the other end of the valve is believed to inherently polished, to permit smooth movement of the valve (85-2) relative to the rod (82).

Regarding claim 5, the plunger is attached to the center shaft via fastening screws or cir-clip (91) of Gorchev et al. on the spring side.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wienick (4,770,212), Bartels (2,856,992), Falk (3,015,469), Kennedy (3,276,480), Treganowan et al. (2,796,889) and Fisher (4,228,822) all show similar types of valves.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Price whose telephone number is (571) 272-2712. The examiner can normally be reached on 8AM - 5PM M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Blau can be reached on (571) 272-4406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CP  October 25, 2005

  
**JOHN RIVELL**  
**PRIMARY EXAMINER**  
**ART UNIT ~~847~~ 3753**